

WHAT IS CLAIMED IS:

1. A laser irradiating system, comprising a light source for emitting a laser beam in elliptical shape, a light source holder for holding said light source, a base for rotatably supporting said light source holder, a first driving unit for rotating said light source holder, a deflecting optical means for deflecting the laser beam from said light source in a direction perpendicular to an optical axis, a rotator holder for holding said deflecting optical means and being rotatable around the optical axis of said light source, a cylindrical lens being arranged so that a center of said cylindrical lens is aligned with said optical axis and the laser beam from said deflecting optical means enters perpendicularly to the optical axis and for diffusing the transmitting laser beam to a fan-shaped laser beam, a control unit for controlling said first driving unit and a receiver for receiving a signal for remote-control operation, wherein an irradiating direction of said fan-shaped laser beam can be operated in remote control operation by said control unit based on a command signal received by said receiver.

2. A laser irradiating system according to claim 1, wherein there is provided a second driving unit for relatively rotating said rotator holder with respect to said light source holder, and said control unit controls rotation of said rotator holder based on a command signal received by said receiver and changes a spreading angle or a thickness of the fan-shaped laser beam.

3. A laser irradiating system according to claim 2, wherein said control unit can control said first driving unit

and said second driving unit independently from each other.

4. A laser irradiating system according to claim 3, wherein said control unit controls said light source holder and said rotator holder so as to rotate synchronously and relatively based on a command signal received by said receiver, and a spreading angle or a thickness of the fan-shaped laser beam can be changed while the fan-shaped laser beam is directed in an arbitrary direction.

5. A laser irradiating system according to claim 1, wherein a signal transmitting medium of the command signal is a light beam, and said receiver is as many photodetection elements as required arranged along the circumference, wherein said control unit judges a direction in which the command signal is issued based on the photodetection status of a plurality of said photodetection elements, drives said first driving unit, and turns the irradiating direction of the fan-shaped laser beam to the direction, in which the command signal is issued.

6. A laser irradiating system according to claim 1, wherein said deflecting optical means comprises a corner cube prism and a pentagonal prism.

7. A laser irradiating system according to claim 1, wherein said deflecting optical means comprises a rhombic prism and a pentagonal prism.